

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented): A method for measuring protein S activity in a plasma sample, comprising the steps of:

(a) mixing a sample of test plasma with protein S deficient plasma, recombinant tissue factor, phospholipid, calcium ion and activated protein C and measuring a clotting time of the sample of test plasma; and

(b) comparing the measurement in (a) to a standard curve derived from clotting times of plasma samples having a range of known protein S activities.

Claim 2 (Previously Presented): The method of claim 1 wherein the standard curve is prepared by mixing each of the plasma samples having the range of known protein S activities with protein S deficient plasma, recombinant tissue factor, phospholipid and activated protein C, measuring the clotting times and plotting each of the clotting times versus each of the known protein S activities, respectively.

Claim 3 (Previously Presented): A method for measuring protein S activity in a plasma sample, comprising the steps of:

(a) mixing a sample of test plasma with protein S deficient plasma, recombinant tissue factor, phospholipid, calcium ion and a protein C activator and measuring a clotting time of the sample of test plasma; and

(b) comparing the measurement in (a) to a standard curve derived from clotting times of plasma samples having a range of known protein S activities.

Claim 4 (Previously Presented): The method of claim 3 wherein the standard curve is prepared by mixing each of the plasma samples having the range of known protein S activities with protein S deficient plasma, recombinant tissue factor, phospholipid, calcium ion and an activator

of protein C, measuring the clotting times, and plotting each of the clotting times versus each of the known protein S activities, respectively.

Claim 5 (Cancelled)

Claim 6 (Previously Presented): The method of claim 1 or claim 3, wherein the recombinant tissue factor is rabbit tissue factor.

Claim 7 (Previously Presented): The method of claim 1 or claim 3, wherein the recombinant tissue factor is purified from mammalian cells.

Claim 8 (Previously Presented): The method of claim 6, wherein the phospholipid is synthetic.

Claim 9 (Previously Presented): The method of claim 1 or claim 3, wherein the phospholipid comprises 1,2-dioleoyl-sn-glycero-3-phosphocholine (PC), 1,2-dioleoyl-sn-glycero-3-phospho-L-serine (PS), and 1,2-dioleoyl-sn-glycero-3-phosphoethanolamine (PE).

Claim 10 (Previously Presented): The method of claim 9, wherein the molar ratio of PC:PS:PE is about 3 to about 4 to about 5.

Claim 11 (Previously Presented): The method of claim 1 wherein the activated protein C has been activated by thrombin prior to the mixing step.

Claim 12 (Previously Presented): The method of claim 1 wherein the activated protein C has been activated by snake venom prior to the mixing step.

Claim 13 (Previously Presented): The method of claim 1 wherein the activated protein C comprises recombinant protein C.

Claim 14 (Previously Presented): The method of claim 1 wherein one or more of the protein S deficient plasma, recombinant tissue factor and activated protein C is derived from a mammalian source selected from the group consisting of a cow, a pig, and a rabbit.

Claim 15 (Previously Presented): The method of claim 1 wherein one or more of the protein S deficient plasma, recombinant tissue factor and activated protein C is derived from a human.

Claim 16 (Cancelled).

Claim 17 (Cancelled).

Claim 18 (Cancelled).

Claim 19 (Cancelled).

Claim 20 (Previously Presented): The method of claim 1 or claim 3 wherein the measuring step is chromogenic.

Claim 21 (Previously Presented): The method of claim 1 or claim 3 wherein the measuring step is spectrophotometric.

Claim 22 (Cancelled).

Claim 23 (Previously Presented): A kit for measuring the functional activity of protein S in a plasma sample, said kit comprising one or more containers containing protein S deficient plasma, tissue factor, phospholipid, calcium ion and activated protein C .

Claim 24 (Previously Presented): A kit for measuring the functional activity of protein S in a plasma sample, said kit comprising one or more containers containing protein S deficient plasma, tissue factor, synthetic phospholipid, calcium ion and protein C activator.

Claim 25 (Currently Amended): The kit of claim 23 or claim 24, further comprising calibration plasma comprising about 100% protein S activity for preparing a standard curve. ~~{CLIENT: PLEASE CONFIRM THAT "ACTIVITY" IS WHAT THIS CLAIM IS MEANT TO RECITE}~~

Claim 26 (Currently Amended): The kit of claim 23 or claim 24, further comprising normal control plasma comprising between about 40-50% protein S activity. ~~{CLIENT: PLEASE CONFIRM THAT "ACTIVITY" IS WHAT THIS CLAIM IS MEANT TO RECITE}~~

Claim 27 (Previously Presented): The kit of claim 23 wherein the phospholipid comprises a synthetic phospholipid.

Claim 28 (Previously Presented): The kit of claim 23 wherein the tissue factor comprises a recombinant tissue factor.

Claim 29 (Previously Presented): The kit of claim 24 wherein the tissue factor comprises a recombinant tissue factor.

Claim 30 (Previously Presented): A kit for measuring the functional activity of protein S in a plasma sample, said kit comprising one or more containers containing protein S deficient plasma, recombinant tissue factor, phospholipid, calcium ion and a protein C activator.

Claim 31 (Currently Amended): The kit of claim 30 further comprising calibration plasma comprising about 100% protein S activity for preparing a standard curve. ~~{PLEASE CONFIRM THAT "ACTIVITY" IS WHAT THIS CLAIM IS MEANT TO RECITE}~~

Claim 32 (Currently Amended): The kit of claim 30 further comprising normal control plasma comprising between about 40-50% protein S activity. ~~{PLEASE CONFIRM THAT "ACTIVITY" IS WHAT THIS CLAIM IS MEANT TO RECITE}~~

Claim 33 (Previously Presented): A method for measuring protein S activity in a plasma sample, comprising the steps of:

(a) mixing a sample of test plasma with protein S deficient plasma, tissue factor, synthetic phospholipid, calcium ion and activated protein C and measuring a clotting time of the sample of test plasma; and

(b) comparing the measurement in (a) to a standard curve derived from clotting times of plasma samples having a range of known protein S activities.

Claim 34 (Previously Presented): The method of claim 33 wherein the standard curve is prepared by mixing each of the plasma samples having the range of known protein S activities with protein S deficient plasma, tissue factor, synthetic phospholipid and activated protein C, measuring the clotting times, and plotting each of the clotting times vs. each of the known protein S activities, respectively.

Claim 35 (Previously Presented): The method of claim 33 wherein the tissue factor is recombinant tissue factor.

Claim 36 (Previously Presented): The method of claim 35 wherein the recombinant tissue factor is rabbit recombinant tissue factor.

Claim 37 (Previously Presented): The method of claim 33 wherein the tissue factor is purified from mammalian cells.

Claim 38 (Previously Presented): The method of claim 33 wherein the synthetic phospholipid comprises 1,2-dioleoyl-sn-glycero-3-phosphocholine (PC), 1,2-dioleoyl-sn-glycero-3-phospho-L-serine (PS), and 1,2-dioleoyl-sn-glycero-3-phosphoethanolamine (PE).

Claim 39 (Previously Presented): The method of claim 38 wherein the molar ratio of PC:PS:PE is about 3 to about 4 to about 5.

Claim 40 (Previously Presented): The method of claim 33 wherein the activated protein C has been activated by thrombin prior to the mixing step.

Claim 41 (Previously Presented): The method of claim 33 wherein the activated protein C has been activated by snake venom prior to the mixing step.

Claim 42 (Previously Presented): The method of claim 33 wherein the activated protein C comprises a recombinant protein C.

Claim 43 (Previously Presented): The method of claim 33 wherein one or more of the protein S deficient plasma, tissue factor and activated protein C is derived from a mammalian source selected from the group consisting of a cow, a pig, and a rabbit.

Claim 44 (Previously Presented): The method of claim 33 wherein one or more of the protein S deficient plasma, tissue factor and activated protein C is derived from a human.

Claim 45 (Previously Presented): The method of claim 33 wherein the measuring step is chromogenic.

Claim 46 (Previously Presented): The method of claim 33 wherein the measuring step is spectrophotometric.

Claim 47 (Previously Presented): A method for measuring protein S activity in a plasma sample, comprising the steps of:

(a) mixing a sample of test plasma with protein S deficient plasma, tissue factor, synthetic phospholipid, calcium ion and protein C activator, and measuring a clotting time of the sample of test plasma; and

(b) comparing the measurement in (a) to a standard curve derived from clotting times of plasma samples having a range of known protein S activities.

Claim 48 (Previously Presented): The method of claim 47 wherein the standard curve is prepared by mixing each of the plasma samples having the range of known protein S activities with protein S deficient plasma, tissue factor, a synthetic phospholipid, calcium ion and a protein C activator, measuring the clotting times, and plotting each of the clotting times versus each of the known protein S activities, respectively.

Claim 49 (Previously Presented): The method of claim 47 wherein the tissue factor comprises a recombinant tissue factor.

Claim 50 (Previously Presented): The method of claim 47 wherein the tissue factor is purified from mammalian cells.

Claim 51 (Previously Presented): The method of claim 47 wherein one or more of the protein S deficient plasma, tissue factor and activator of protein C is derived from a human.